AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-12 (Canceled)

13. (Currently Amended) A circuit board assembly comprising:

a mother board having a first ~~plurality of~~ through-holes;

a daughter board having a second ~~plurality of~~ through-holes, the daughter board disposed with zero interconnection height relative to the mother board;

at least one pass-through socket coupled to the combination of the mother board and the daughter board, the at least one pass-through socket disposed on an exterior side of the combination of the mother board and the daughter board; and

a pin header having a pin ~~one or more pins~~, the ~~one more~~ pins insertable through the at least one pass-through socket and the combination of the mother board and the daughter board via the first and second ~~pluralities of~~ through holes, the ~~one or more~~ pins making electrical contact to signal contacts disposed in the mother board and the daughter board when the one or more pins are inserted.

14. (Currently Amended) The circuit board assembly of claim ~~13~~ 20 wherein the electrical contact with the ~~one or more~~ pins is maintained by spring force of the signal contacts.

15. (Currently Amended) The circuit board assembly of claim ~~13~~ 20 wherein the daughter board is an OC-192 transmit module disposed in a synchronous optical network (SONET) communication system.

16. (Currently Amended) The circuit board assembly of claim 13 wherein the daughter board is connected via a connector, the connection fixing the daughter board and the mother board in at least a first plane, the daughter board floating in a second plane prior to the insertion of the ~~one or more~~ pins through the at least one pass-through socket and the combination of the mother board and the daughter board via the first and second ~~pluralities of~~ through-holes.

17. (Currently Amended) The circuit board assembly of claim 16 wherein the first plane is an X-Y plane, the connection further fixing the daughter board and the mother board in a Y-Z plane, the daughter board floating in an X-Z plane prior to the insertion of the ~~one or more~~ pins.

18. (Currently Amended) The circuit board assembly of claim ~~13~~ 20 wherein the pin header includes a plurality of pins for passing through the at least one pass-through socket ~~through-holes~~, ~~the~~ a first plurality of through-holes in the mother board and ~~the~~ a second plurality of through-holes in the daughter board.

19. (Original) The circuit board assembly of claim 13 wherein the circuit board assembly includes a second pass-through socket such that one pass-through socket is disposed on one exterior side of the aligned combination of the mother board and the daughter board and another pass-through socket is disposed on an opposing exterior side of the aligned combination.

20. (Currently Amended) The circuit board assembly of claim 13 wherein the daughter board floats relative to the mother board prior to the insertion of the ~~one or more~~ pins of the pin header, the float enabling the daughter board to interconnect with the mother board with a connector aligned along a second axis different from that first axis in the direction of the ~~one or more~~ pins of the pin header.

21. (Original) The circuit board assembly of claim 20 wherein the first axis and the second axis are perpendicularly displaced.

22. (Currently Amended) The circuit board assembly of claim ~~20~~ 15 wherein the connector is an optical connector.

23-27 (Canceled)

28. (New) A system comprising:

a first circuit board comprising a first electrical contact and a first connector;

a second circuit board comprising a second electrical contact and a second connector configured to be mated to the first connector, wherein

when mated to each other, the first connector and the second connector provide a first connection for transmitting at least one signal between the first circuit board and the second circuit board; and

a pin header having at least one pin, the at least one pin passing through at least one hole in the first circuit board and at least one hole in the second circuit board, one of the at least one pins configured to make electrical contact with the first electrical contact and the second electrical contact, wherein

the at least one pin is perpendicular to the first connection between the first connector and the second connector.

29. (New) The system of claim 28, wherein

the second connector is configured to be displaced along a first axis until the second connector is mated with the first connector;

the first axis is perpendicular to a second axis; and

the at least one pin extends along the second axis.

30. (New) The system of claim 28, wherein

when extended through the at least one hole in the first circuit board and the at least one hole in the second circuit board, the at least one pin provides a second connection for transmitting at least one signal between the first circuit board and the second circuit board.

31. (New) The system of claim 30, wherein

the first connection is an optical connection and a second connection is an electrical connection.

32. (New) The system of claim 31, wherein

the first connection transmits at least one optical signal between the first circuit board and the second circuit board, and

the first connection transmits the at least one optical signal along a first axis.

33. (New) The system of claim 32, wherein

the second connection transmits at least one electrical signal between the first circuit board and the second circuit board, and

the second connection transmits the at least one electrical signal along the second axis.

34. (New) The system of claim 31, wherein
the optical connection between the first connector and the second connector fixes the first circuit board and the second circuit board in at least a first plane.

35. (New) The system of claim 34, wherein
the second circuit board is an OC-192 transmit module.

36. (New) The system of claim 31, wherein
the second circuit board is disposed with zero interconnection height relative to the first circuit board.

37. (New) The system of claim 28, further comprising:
a pass-through socket, wherein
the at least one pin passes through at least one hole in the pass-through socket.

38. (New) The system of claim 37, further comprising:
a second pass-through socket, wherein
the at least one pin passes through at least one hole in the second pass-through socket.

39. (New) The system of claim 38, wherein
the pass-through socket is disposed on one side of a combination of the first circuit board and the second circuit board, and
the second-pass through socket is disposed on an opposite side of the combination of the first circuit board and the second circuit board.

40. (New) The system of claim 28, wherein
electrical contact with the at least one pin is maintained by spring force of the first electrical contact and the second electrical contact.

41. (New) A system comprising:

means for providing a first connection, wherein the first connection transmits at least one signal between a first circuit board and a second circuit board; and

means for inserting one or more pins through a first through-hole in the first circuit board and a second through-hole in the second circuit board to provide a second connection between the first circuit board and the second circuit board, wherein

the first connection is in a first axis;

the second connection is in a second axis; and

the first axis is perpendicular to the second axis.

42. (New) The system of claim 41, wherein the first connection is an optical connection and the second connection is an electrical connection.

43. (New) The system of claim 42, wherein

the first connection transmits at least one optical signal between the first circuit board and the second circuit board, and

the first connection transmits the at least one optical signal along the first axis.

44. (New) The system of claim 43, wherein

the second connection transmits at least one electrical signal between the first circuit board and the second circuit board, and

the second connection transmits the at least one electrical signal along the second axis.

45. (New) The system of claim 42, wherein

the optical connection fixes the first circuit board and the second circuit board in at least a first plane.

46. (New) The system of claim 40, further comprising:

a pass-through socket, wherein

the means for inserting insert the one or more pins through at least one through-hole in the pass-through socket.

47. (New) The system of claim 46, further comprising:

a second pass-through socket, wherein

the means for inserting insert the one or more pins through at least one hole in the second pass-through socket.

48. (New) The system of claim 47, wherein

the pass-through socket is disposed on one side of a combination of the first circuit board and the second circuit board, and

the second-pass through socket is disposed on an opposite side of the combination of the first circuit board and the second circuit board.

49. (New) A method comprising:

connecting a first connector of a first circuit board with a second connector of a second circuit board to provide a first connection for transmitting a signal from the first circuit board to the second circuit board; and

inserting a pin through a first through-hole of the first circuit board and a second through-hole of the second circuit board to provide a second connection, wherein the pin is perpendicular to the first connection.

50. (New) The method of claim 49, further comprising:

aligning the first through-hole of the first circuit board with the second through-hole of the second circuit board.

51. (New) The method of claim 49, wherein

the first connection is an optical connection and the second connection is an electrical connection.

52. (New) The method of claim 51, further comprising:

transmitting a first optical signal along a first axis via the first connection; and

transmitting a first electrical signal along a second axis via the second connection, wherein

the first axis is perpendicular to the second axis.

53. (New) The method of claim 49, further comprising:
inserting the pin through a through-hole of a first pass-through socket.

54. (New) The method of claim 53, further comprising:
aligning the through-hole of the first pass-through socket with the first through-hole of the first circuit board.

55. (New) The method of claim 53, further comprising:
inserting the pin through a through-hole of a second pass-through socket.

56. (New) The method of claim 55, further comprising:
aligning the plurality of through-holes of the second pass-through socket with the second plurality of through-holes of the second circuit board.

57. (New) The method of claim 55, further comprising:
placing the first pass-through socket in contact with the first circuit board; and
placing the second pass-through socket in contact with the second circuit board.

58. (New) A method comprising:
transmitting a first signal between a first circuit board and a second circuit board; and
transmitting a second signal between the first circuit board and the second circuit board, wherein
the first signal is transmitted along a first axis via a first connection between a first connector of a first circuit board and a second connector of a second circuit board,
the second signal is transmitted along a second axis via a pin that extends through a first through-hole of the first circuit board and a second through-hole of the second circuit board to provide a second connection, and
the first axis is perpendicular to the second axis.

59. (New) The method of claim 58, wherein
the first connection is an optical connection and the second connection is an electrical connection.

60. (New) The method of claim 58, wherein
the pin extends through a through-hole of a first pass-through socket.

61. (New) The method of claim 60, wherein
the pin extends through a through-hole of a second pass-through socket.

62. (New) The method of claim 61, wherein
the first pass-through socket contacts the first circuit board; and
the second pass-through socket contacts the second circuit board.